Sexual Violence Management Through Polygraph and Psychological Intervention

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Abstract
Rape and violence against women are a massive problem in India. Among the various cities in India the highest number of rapes reported in metropolitan cities rather than small cities. Not only sexual offences are remarkably grown up in cities but in a rural area also. Rape victims in India, especially in a rural area often subject to shaming and considered not suitable for married life and the life of victim became destroyed. The study aimed to find a high degree of sexual violence among students and provide them with a systematic intervention to control their sexual motives. In the study, 500 students were surveyed and administered Sexual Violence Scale and 34 students were found with a high degree of sexual violence tendency. These students were randomly divided into two groups viz. experimental and control. The experimental group adults were provided a sex management programme for two months while the control group adults didn’t provide any programme. After a two months period, both groups were re-administered Sexual Violence Risk Scale. The obtained data were analysed through t statistic. The significant difference was found between the two groups. It was found that the degree of sexual violence significantly decreased among experimental group adults.

Keywords: adult sex offenders, polygraph, psychological intervention, sexual violence

Abstrak

Kata kunci: intervensi psikologis, kekerasan seksual, pelaku seks remaja, poligraf
Introduction

India will become rape capital of the world if the growth rate of rape and sexual assault on women is not controlled. Daily a number of women are becoming a victim of rape. According to the National Crime Record Bureau (2019) crime against women have increased by 7.3 per cent from 2018 to 2019. Moreover, according to this report, 405326 case were reported across India in 2019. Whether the government of India has made amendment in Indian Penal Code for a sexual offence, day by day rapes are increasing rapidly. The rape rate is highest in Madhya Pradesh, Uttar Pradesh, Delhi, West Bengal and Maharashtra. Among the various cities in India, the highest number of rapes reported in metropolitan cities rather than small cities. Not only sexual offences are remarkably grown up in cities but in rural area also. Rape victims in India, especially in a rural area often subject to shaming and considered not suitable for marriage life and the life of victim became destroyed. Hence, rape and violence against women are a massive problem in India.

Sex is a biological need of human being but every person has to make satisfaction his sexual urges by socially and legally acceptable manners. If someone tries to satisfy it with harming others especially with women it becomes a crime. Hence rape or sexual assault of women is a forbidden act that intentionally harming another person. A sex offender is a person who has committed sex crimes such as rape, sexual assault and doing sexual harassment or women. When the term "Sex offender" is applied broadly to persons who commit such crimes, it implies that these individuals are alike in most or all ways. A sex offence is varied with culture and legal jurisdiction of different countries. Barlow (1987) has given four criteria of sex crimes such as nature of the act, nature of sex object, social setting in which sex occurs and the existence of consent. Any person who behaves in a sexual manner with another person without her or his permission it is supposed to be a crime as per Indian Penal Code 375. Rape is considered a major sex offence that is defined as sexual intercourse against will, without consent, consent obtained by the fear of hurt or with minor age partner. The problem of sex offending has garnered significant concern and attention in recent years in India. Sex offences are increasing in number, type and intensity. An international meta-analysis of 61 research studies found the average sex offence recidivism rate, as determined by rearrests or reconviction for subsequent sex crimes was 18.9 per cent for rapists (Hanson & Morton-Bourgon, 2005). Hence, sexual offenders should provide treatment and management.

One of the foremost influential definitions of sexual violence was provided by Kelly (1988) who defined it as, “Any physical, visual, verbal, or sexual act that's experienced by the lady or girl at the time or later as a threat, invasion, or assault that has the effect of injuring her or degrading her and/or removing her ability to regulate intimate contact”.

This conceptualization of sexual violence clearly identifies that there's a continuum of sexual offending that ranges from pressure to possess sex through to rape. This insight is a crucial one as there's a good range of various behaviors which will be understood as instances of sexual violence. The different legal categories of sexually violent offenses also reflect a substantial diversity of behavioral acts. this is often clearly illustrated within the sample of sexual offenses listed within the Sexual Offences Act (2003) for England and Wales.

Sexual offenses are often distinguished by their type, the victim of the act, and therefore the relationship between victim and offender. Rape within the Sexual Offences Act (2003) refers to the non-consensual penetration of the vagina, mouth, or anus of another person by a penis and thus is an offense which will only be perpetrated by men, although the victim could also be male or female. sexual abuse may be a more inclusive legal category that involves non-consensual sexual touching of another person. Other offenses that don't involve direct physical contact with victims include voyeurism, exposure, and possession and dissemination of indecent photographs of youngsters.

Sexual offenses encompass a comparatively wide array of criminal acts from comparatively minor behaviours like public nudity to the intense interpersonal crime of rape. There are significant cross-national differences within the way that different sexual offenses are defined although distinctions are typically made supported the gravity of the offense, the character of the victim, and therefore the
relationship between victim and offender. Estimating the prevalence of sexual offending is difficult because a big proportion of sexual crimes aren't reported or recorded and thus fail to form their way into official crime statistics. However, a variety of studies clearly indicates that a big proportion of all women are victims of sexual offenses at a while in their life which these are presumably to be perpetrated by individuals known to the victim.

Sex offenders are most ordinarily differentiated supported the age of the standard victim: adult sex offenders are those individuals who largely sexually offend against adults, and child sex offenders are those individuals who typically offend against children. Child sex offenders also are often further characterized supported the age of their victims and their relationship to them. Men with specific and recurrent sexual interests in prepubescent children are termed pedophiles. Although there's considerable overlap within the characteristics of both sorts of offenders, adult sex offenders tend to resemble the offender population more generally. Both adult and child sex offenders are likely to possess experienced adverse developmental experiences as children, especially childhood sexual assault. Variety of broad approaches are utilized to advance our understanding of sexual offending. These include evolutionary approaches, social-structural and cultural approaches, and social-cognitive approaches. Some evolutionary psychologists have argued that rape could also be a biological adaptation that has been specifically selected for. However, the available evidence for this claim is somewhat mixed, and it's going to be more plausible to look at rape because the by-product of other evolved mechanisms, like a bent for men to regulate the sexuality of girls.

Feminist scholars also emphasize the tendency for men to exert dominance and control over women although they see the origin of this tendency as arising from specific social-structural arrangements. A social-cognitive approach to understanding sexual offending focuses on how the way that individuals believe and process social information can influence their behaviour. More specifically, it's argued that both adult and child sex offenders may hold specific offense-supportive beliefs or implicit theories that contribute to their offending behaviour. Thus, adult sex offenders may come to simply accept certain rape myths like the thought that when women say no they really mean yes, and child sex offenders may believe that their actions don't really harm their victims. Although there's some support for the existence of such offense-supportive beliefs or implicit theories and their role within the etiology of sexual offending, more research is required. Variety of specific theories of sexual offending have also been developed that, in various degrees, integrate explanations from different levels of study although most specialise in relatively proximate psychological processes.

Finkelhor's (1994) precondition model of kid sexual offending outlines four key 'pre-conditions' that has got to be met for sexual offending to occur, Hall & Hirschman (1991) argue that there are four primary 'motivational precursors' that drive sexual offending, and Marshall & Barbaree (1990) specialise in the event processes which will produce to sexual offending. Each of those theoretical perspectives highlights the role that individual psychological factors can play within the etiology of sexual offending and thus attempts to elucidate why some individuals are more likely to become sexual offenders than others. A recent plan to integrate a number of the key features of those three models into a more comprehensive model of kid sex offending is provided by Ward and Siegert (2002) in their pathways model. A key feature of this model, and one which will help to account for the heterogeneous nature of sexual offending, is that the existence of multiple offense pathways each characterized by a primary deficit. Finally, Ward and Beech's (2006) integrated model of sexual offending represents an ambitious effort to integrate biological, psychological, developmental, and social factors into a comprehensive theory.

Characteristics of Sex Offenders

Sexual offenders are a similarly diverse group although they're commonly divided into two main sorts of perpetrators: people who offend against adults (especially adult women) and people that offend against children. Offenders who tend to offend against adults are typically mentioned as adult sex offenders or rapists (reflecting the very fact that the majority of the crimes are directed against women). Offenders
who tend to offend against children are variously mentioned within the literature as child sex offenders, child molesters, and paedophiles.

**Adult sex offenders**

The most obvious characteristic of adult sex offenders is that the overwhelming majority are male. Because rape is typically legally defined in ways which preclude female offenders, all rapists are male. The overwhelming majority of all sexual assaults and other sorts of sexual offending that involve adult victims also are perpetrated by men. Adult sex offenders typically share many of an equivalent characteristic as offenders generally. They're more likely, for instance, to return from a coffee socioeconomic background, be unemployed, and be less educated (Gannon et al., 2008). They're also likely to interact during a big variety of various sorts of offenses and have convictions for both sexual and non-sexual offenses (Gannon et al., 2008). Adult sex offenders also are more likely to be characterized by adverse developmental experiences that always involve a history of sexual assault, physical abuse and neglect, and exposure to violence (Levenson & Socia, 2015).

**Child sex offenders**

Child sex offenders, like people who offend against adults, are presumably to be men. Individuals who offend against children are often distinguished from adult sex offenders during a number of important respects, although there's also a transparent overlap in terms of the danger factors for both sorts of offenders (Whitaker et al., 2008). Generally speaking, compared to adult sex offenders, child sex offenders tend to be older and better educated with a less extensive and versatile criminal history (Gannon et al., 2008). Furthermore, although both adult and child sex offenders are more likely to possess a history of childhood sexual assault than other sorts of offenders, child sex offenders are more likely to possess experienced sexual assault than adult sex offenders (Jesperson et al., 2009). As an example, within the study administered by Simons et al. (2008) on the brink of three-quarters of the sample of kid sex offenders had experienced some sort of sexual assault. Child sex offenders are often further categorized supported characteristics of the victim like age, gender, and relationship to the offender (Bickley & Beech, 2001). Familial offenders sexually offend against relations like children, whereas extra-familial offenders target non-family members. Some offenders may specifically target boys whereas others target girls. However, although there's some utility in categorizing offenders during this way, there's also a big amount of crossover in offender–victim relationships. Perhaps the foremost common categorization is predicated on the age of the victim, with a distinction made between ‘pedophiles’ (those with a sexual interest in pre-pubescent children) and ‘hebephiles’ (those with a sexual interest in pubescent children). We'll check out pedophilia and pedophilic disorder in our discussion of sexual paraphilias within the next section; however, it's worth noting that there's often significant age diversity within the victims of kid sex offenders whether or not they be considered pedophiles or hebephiles. Making an accurate assessment of the age preferences of sex offenders also can be problematic.

**Female sex offenders**

Most sex offenders are male. Hence, most theories of sexual offending are theories that are designed to elucidate male sexual offending. It's important to acknowledge, however, that ladies do also perpetrate sexual offenses. Getting a transparent picture of the prevalence of female perpetrated sexual offending is problematic for a variety of various reasons. However, it's likely that somewhere within the region of 5 percent of sexual offenders are female (Cortoni & Gannon, 2016). Relatively little is understood about the characteristics of female sex offenders but, like their male counterparts, they're likely to be a comparatively heterogeneous group of offenders. In an effort to bond what's known about female sex offenders a review of studies was undertaken. They found that approximately half the offenders had themselves experienced sexual assault and were likely to return from violent or unstable families, and around 50 percent suffered from a mental disturbance. Clearly, more work is required on the character of female sexual offending so as to raised inform assessment, treatment, and prevention efforts.
Polygraph examination

Polygraph examination measures and records several bodily changes such as pulse rate, skin conductivity, blood pressure and respiration rate etc. Polygraph, in several western countries, is used in various settings such as criminal investigation, national security investigation, military interrogations, screening job applications and employees and sex offender treatment. Polygraph is often wrongly referred to as “Lie Detectors”. In fact, that entire polygraph do is measure various psychophysiological indices of arousal, such as respiration rate and skin conductance. It is seen that when people speak lie, they become more emotionally aroused. Polygraph operators claim to be able to detect such tell-tale signs of arousal and use them to determine whether a person is telling the truth or lying (French, 2012). Sex offenders often deny disclosures and their previous sexual history. Post convicted polygraph testing has been used to find out such disclosures. The various researchers are argued that the polygraph has its utility, regardless of its accuracy and recently they have found that polygraph is highly successful in obtaining previously undisclosed information and sexual violence risk factors. In many post convicted polygraph studies, this examination has been conducted as a part of sexual offender management in which one's sexual pre-disclosures and post disclosures are compared (Ahlmeyer et al., 2000). The use of such design is useful in sexual offender management. Post convicted polygraph examination of sexual offenders has been shown to be quite effective in obtaining a more accurate account of sex offenders’ deviant criminal behaviour (Bourke & Hernandez, 2009; Buschman, et.al 2011) and has been used to help identify undetected paraphilic interests, offences, and victims (Wilcox et al., 2005). A pilot study has been carried out throughout the world suggesting that their outline use of such testing would lead to offenders being more honest with their offender managers. Polygraph testing proved beneficial as a means for obtaining more realistic and undetected histories concerning sexual offences.

Plenty of scientists throughout the world have conducted research on sexual offenders and will be remain continued. In the field of psychology especially in forensic psychology researchers are trying to find out the sexual motives of sexual offenders as well as they try to identify the mental causes of such offences. Moreover, a forensic psychologist conducted researches on lie detection, Norco analysis, brain mapping and brain signature to help in the verdict in the judicial system. At most of the time sexual offenders giving deceptive accounts to investigation officer on the stand. As well as they provide a false alibi to protect themselves. Forensic psychologist trying to find out how should detect the deception of accused. A vast part of sexual offender research at international levels such as in the US, UK, Canada, Australia China and Japan has been performed on sexual offender management through post convicted polygraph. None of the research on the sexual offender by using polygraph has been conducted in India. Deficiency of such researches in India may several reasons especially, not easily access the polygraph technology, a limited number of departments of forensic psychology or high level of financial assistance needed etc. However, in India, few types of research on sexual offenders have been conducted with its peripheral variables. Few numbers of relevant researches at the international and national level have been elucidated here as follows.

English at al. (2003) conducted a study to identify the value of polygraph testing in sex offender management. The sample of 232 sexual offenders was selected from four states of the US. The empirical analyses support their hypothesis that use of the post-conviction polygraph is a useful technique of the risk management of individual sex offenders. It was concluded that the group of polygraph testing resulted in offenders engaging in less high-risk behaviour. Patric et al. (2013) conducted a study to find out how is the Post-Conviction Polygraph Examination beneficial in adult sex offender management activities 732 sex offenders have been studied with post convicted polygraph and found that it is the most useful technique to obtain sexual disclosures. In their study, they have suggested a number of strategies for sex offender management. Bourke at al. (2014) in their study examine an investigative method that they used polygraph and find out its effectiveness in identifying previously undetected sexual offences of 127 suspects and convicted. During polygraph procedures, they found 52.8 % of the study sample provided disclosures about the abuse they perpetrated. Gill et al. (2013) sheds light on a range of strategies likely to prove more effective for addressing the problem of sexual violence in India by conducting a study on the well-known case of Nirbhaya in India. They raised the questions in front of the Indian government
whether punitive methods, such as the death penalty and chemical castration, offer the best way forward. Math, Suresh et al. (2014) have conducted a study the relationship between the consumption of pornography and the subsequent increase in sexual violence.

In India, the problem of sex offending has obtained significant concern and attention in recent years. When we perceive details behind a specific phenomenon it became easy to develop or eradicate it. Rape incidents in India are growing day by day and unfortunately, these offenders are being escaped from such criminal acts due to lacunas in the judicial system in India. The polygraph examination of sexual offenders is conducted compulsory in most of the countries from the world especially from the European countries and the rest of the western world. Government from that country are introduced mandatory polygraph testing for rapist and other serious sex offenders not only at the time of detection process but also when they are released from prison, in the hope that this will reduce reoffending rates and thus maintain the peace in society (French, 2012).

An important reason for polygraph testing of sexual offenders is to understanding their sexual history disclosure, sexual violent risk, sexual urges in their mind, sexual beliefs and thoughts they possess. In Indian contexts ample researches have been conducted on sexual offenders (Chockalingam & Vijaya, 2008; Pathare, 2013; Agarwal, et.al 1987; Math, et.al 2014; Vega & Malamuth, 2007; Malamut, et.al 2000). However, none of the studies has been conducted by the psychological viewpoints on sexual violence management. In America and European countries, the polygraph gained wide acceptance in the sexual offender treatment where it is used for supervising, treating and monitoring sex offenders on parole or probation (Consigli, 2002; English, et.al 2000; Grubin, 2003; Van, 2006; Gurbin, et.al 2004; Bourke, et.al 2014). The growing rate of interest in using the polygraph as a tool in the treatment and risk assessment of convicted sex offenders throughout the world.

Objectives of the study:
1) To find out the level of sexual violence among students through a polygraph examination.
2) To suggest the sexual violence management strategies to the sexual offenders.

Hypotheses of the study:
1) Polygraph assessment and sexual violence scale would be beneficial to find out the high level of sexual violence risk.
2) Sex violence management programme would be beneficial for sex offenders to decline their risk of sexual violence.

Methods

Sample
Convenience method of sampling is employed in the study. Students who have recently committed mild sexual offence but not registered their offence in local police station were recruited in the study. All participants were in the age ranging from 20 to 25 years and they were studying graduation course.

Tools for the study

Sexual Violence Scale
This scale has been developed by researcher. This test is used to assess the presence of sexual violence risk factors. This instrument contains 20 items with five-point Likert type response options.

Polygraph
Polygraph apparatus is designed by the industry-leading true 8 channel system employs Limestone Technologies Inc.’s. The Data Pac USB records blood pressure, heart rate, upper and lower respiration, temperature, skin conductance (EDA) and two countermeasure channels (piezo and pneumatic).

Demographic Information Sheet (DIS)
To record the primary information of the participated student’s demographic information sheet was prepared and five question regarding the sexual offence were included in it.
Procedure

Initially, sexual violence scale and the demographic information sheet were administered to the graduate students of various colleges in the Sangli City of Maharashtra State. After analysis of the data, 63 students were found with miscellaneous sexual offence but not serious as need to be registered in the local police station. Out of 63 students only 34 students were found with high level of sexual risk. Study concentrated on these 34 students only, and taking the consent for conducting the polygraph examination, applying the sex management programme and re-administration of psychological scales on these students. The 34 students were divided into two groups viz. experimental and control group. Only an experimental group student was given the sex management programme in three sessions with two months gap of interval while the control group students were not given any programme. A psychological test administration was performed in both groups after six months and found that the significant decline in the unethical feelings and thoughts about sexual intercourse in experimental group students. The polygraph examination was performed to counter check the reliability of decline in the unethical feelings and thoughts of sex in experimental group.

Research Design of the Study

Pre-test and post-test design with sexual management programme in the between period was used in the study.

Results and Discussion

It can be observed from Figure 1, that only 34 students (6.8 %) were found with the high degree of sexual violence risk, while 159 and 307 students (31.8 & 61.4 %) respectively were with average level and low level of sexual violence risk.

Table 1. Comparison Between Two Groups Before Sexual Violence Risk.

<table>
<thead>
<tr>
<th>Sexual Violence Risk</th>
<th>SVR Groups</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Experimental Group</td>
<td>17</td>
<td>17.94</td>
<td>1.14</td>
<td>1.40</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>Control Group</td>
<td>17</td>
<td>18.47</td>
<td>1.06</td>
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</tr>
</tbody>
</table>

Table 1. indicating the difference between experimental group and control group on sexual violence risk. The mean value of experimental group is 17.94 while control group is 18.47 with 1.14 and 1.06 standard deviation respectively. The t value is 1.40 which is not significant it means that both groups having a
same degree of level of sexual violence risk. The mean value of both groups indicating the high degree of sexual violence risk.

Table 2. Comparison of Experimental and Control Group on Sexual Violence Risk in Pre and Post Condition

<table>
<thead>
<tr>
<th>Groups</th>
<th>Experimental Group</th>
<th>Control Group</th>
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</thead>
<tbody>
<tr>
<td>Conditions</td>
<td>Pre-Test</td>
<td>Post-Test</td>
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<tr>
<td><strong>n</strong></td>
<td>17</td>
<td>17</td>
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<tr>
<td><strong>Mean</strong></td>
<td>17.94</td>
<td>9.23</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>1.14</td>
<td>2.94</td>
</tr>
<tr>
<td><strong>t</strong></td>
<td>6.695</td>
<td></td>
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<tr>
<td><strong>Significance</strong></td>
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<td></td>
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<tr>
<td><strong>Cohen's d</strong></td>
<td>3.39</td>
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</table>

It is noticed from Table 2. that students of experimental group have a mean score of 17.94 in pre-test condition and 9.23 in post-test condition with SD 1.14 and 2.94 respectively. The t value of their mean differences is 6.695 which is quite high and significant at .01 level of confidence. Further, Cohen’s ‘d’ value suggests this difference between two groups (8.71) is too large (Cohen’s d = 3.39) and it is indicating the group mean differed by more than one standard deviation. It means that the remarkable decline was taken place in the level of sexual violence risk. When the picture seen about the control group mean score in pre-test condition is 18.47 and 17.94 in post-test condition. The t value of this difference is .93 which is not significant it means that the decline is not taken place in the sexual violence risk in control group students. It can be clearly concluding that the sexual management programme which is given for experimental group is responsible for the results only.

The approach of any sex offender management programme is to reduce the recidivism of sex offenders. In the US, large numbers of sexual offenders are taking benefit of the sexual offender management programme and released from prison on parole. Indian government should have to run such types of programmes of sexual criminals in various prisons. Sex offender management programmes should run in correctional settings for the rehabilitation of these offenders to protect its citizens. An essential component of the sex offender management process involves the provision of specialized treatment, designed to promote offender accountability and enhance skills and competencies that may ultimately reduce the likelihood of re-offending. The major goal of the management of sex offenders is the prevention of sexual offences in the future. However, reducing recidivism is depending on what types of strategies are taken into account for managing themselves. These criminals pose unique challenges; hence the psychological remedies should be employed in this direction.

Conclusion

Sexual violence management programme in the study have found greater usefulness to reduce the unethical sexual motives. Moreover, the polygraph testing of sexual offenders is also seen quite useful to investigate the truth of their sexual history disclosure, sexual violent risk, sexual urges in their mind, sexual beliefs and thoughts they possess.

References


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